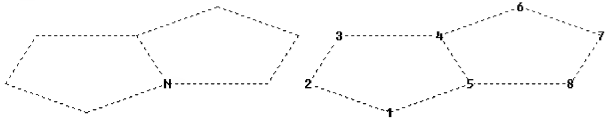
=>
Uploading C:\Program Files\Stnexp\Queries\10543014-amended.str

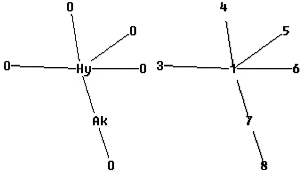


ring nodes :
1 2 3 4 5 6 7 8
ring bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom

L1 STRUCTURE UPLOADED

=>
Uploading C:\Program Files\Stnexp\Queries\10543014-amended-narrow.str



chain nodes :
1 3 4 5 6 7 8
chain bonds :
1-3 1-4 1-5 1-6 1-7 7-8
exact/norm bonds :
1-3 1-4 1-5 1-6 1-7 7-8

Connectivity :
7:2 E exact RC ring/chain
Match level :
1:Atom 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS
Generic attributes :
1:
Saturation : Saturated
Number of Hetero Atoms : Exactly 1
Type of Ring System : Polycyclic
7:
Saturation : Saturated

```
Element Count :
Node 1: Limited
    N,N1
    C,C7

L2      STRUCTURE UPLOADED


=> d his

     FILE 'REGISTRY' ENTERED AT 06:26:52 ON 22 DEC 2008
L1              STRUCTURE UPLOADED
L2              STRUCTURE UPLOADED
L4        10461 S L1 SSS FULL
L5           51 S L2 SSS FULL SUB=L4

     FILE 'CAPLUS' ENTERED AT 06:27:51 ON 22 DEC 2008
L6           42 S L5
L9            1 S US200!-543014/APPS
L10           1 S L6 AND L9
L11          41 S L6 NOT L9

     FILE 'REGISTRY' ENTERED AT 06:28:30 ON 22 DEC 2008

=> d l1
L1 HAS NO ANSWERS
L1              STR
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=> d l2
L2 HAS NO ANSWERS
L2              STR
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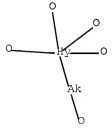


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=> fil caplus

=> d l10 bib abs
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√L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN - INSTANT

PA Molecularnature Limited, UK

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004064715	A2	20040805	WO 2004-GB198	20040121
	WO 2004064715	A3	20041223		
	AU 2004206085	A1	20040805	AU 2004-206085	20040121
	CA 2513881	A1	20040805	CA 2004-2513881	20040121
	EP 1587480	A2	20051026	EP 2004-703841	20040121
	CN 1761666	A	20060419	CN 2004-80007408	20040121
	JP 2006515357	T	20060525	JP 2006-500223	20040121
	IN 2005DN03195	A	20070413	IN 2005-DN3195	20050719
	US 20070155814	A1	20070705	US 2006-543014	20060815 <--
PRAI	GB 2003-1554	A	20030123		
	WO 2004-GB198	A	20040121		

=> d l11 tot bib abs hitstr

√L11 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

IN Muller, Rolf; Muller-Cohn, Judy

PA USA

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20080268514	A1	20081030	US 2008-108360	20080423
PRAI	US 2007-913781P	P	√20070424		

L11 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

SO e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given
Publisher: John Wiley & Sons, Ltd., Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME

DT Conference; General Review; (online computer file)

LA English

OS CASREACT 149:306596

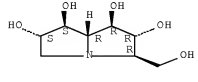
AB A review of the article (R)-(-)-2,2-Diphenylcyclopentanol.

IT 159440-57-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
((R)-(-)-2,2-Diphenylcyclopentanol)

RN 159440-57-0 CAPLUS

CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6S,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



√L11 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

PA Biomatrica, Inc., USA

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20080176209	A1	20080724	US 2007-876667	20071022
	US 20050276728	A1	20051215	US 2005-102588	20050408
	US 20060099567	A1	20060511	US 2005-291267	20051201
	WO 2007075253	A2	20070705	WO 2006-US45661	20061129
	WO 2007075253	A3	20080103		
	US 20080307117	A1	20081211	US 2008-182926	20080730
PRAI	US 2004-560829P	P	√20040408		
	US 2005-102588	A2	20050408		
	US 2005-291267	A2	20051201		
	WO 2006-US45661	A2	20061129		
	US 2007-947275P	P	20070629		
	WO 2005-US12084	A2	20050408		

√L11 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Organic Letters (2008), 10(13), 2769-2771

√L11 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron (2008), 64(21), 4868-4879

√L11 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA Institute of Chemistry, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 18pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	√DATE	APPLICATION NO.	DATE
PI	CN 101153040	A	20080402	CN 2006-10113357	20060925
PRAI	CN 2006-10113357		20060925		

√L11 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Natural Product Communications (2008), 3(1), 41-44

√L11 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Natural Product Communications (2008), 3(1), 31-33

√L11 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Natural Product Reports (2008), 25(1), 139-165

√L11 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA Summit Corporation PLC, UK

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 2008009894	A2	20080124	WO 2007-GB2597	√20070712
	WO 2008009894	A3	20080619		
PRAI	GB 2006-14098	A	20060715		

√L11 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Journal of Natural Products (2007), 70(6), 993-997

√L11 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Science of Synthesis (2006), 20b, 1065-1089

√L11 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron: Asymmetry (2006), 17(18), 2702-2712

√L11 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA MNL Pharma Limited, UK
SO PCT Int. Appl., 85 pp.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006077427	A2	20060727	WO 2006-GB209	√20060120
WO 2006077427	A3	20060914		
PRAI GB 2005-1352	A	20050121		

√L11 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Journal of Carbohydrate Chemistry (2006), 25(2-3), 281-295

√L11 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA MNL Pharma Limited, UK
SO PCT Int. Appl., 40 pp.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006067419	A2	20060629	WO 2005-GB4945	√20051220
WO 2006067419	A3	20070329		
PRAI GB 2004-27882	A	20041221		

√L11 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA Biomatrica, Inc., USA
SO U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S. Ser. No. 102,588.
CODEN: USXXCO

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20060099567	A1	20060511	US 2005-291267	20051201
WO 2005113147	A2	20051201	WO 2005-US12084	20050408
WO 2005113147	A3	20060323		
US 20050276728	A1	20051215	US 2005-102588	20050408
AU 2006330034	A1	20070705	AU 2006-330034	20061129
CA 2632203	A1	20070705	CA 2006-2632203	20061129
WO 2007075253	A2	20070705	WO 2006-US45661	20061129

	WO 2007075253	A3	20080103			
	EP 1951868	A2	20080806	EP 2006-848927		20061129
	US 20080176209	A1	20080724	US 2007-876667		20071022
	MX 200807097	A	20080613	MX 2008-7097		20080530
	IN 2008DN05146	A	20080808	IN 2008-DN5146		20080616
	KR 2008085003	A	20080922	KR 2008-716123		20080701
	US 20080307117	A1	20081211	US 2008-182926		20080730
PRAI	US 2004-560829P	P	√20040408			
	US 2005-102588	A2	20050408			
	WO 2005-US12084	A2	20050408			
	US 2005-291267	A	20051201			
	WO 2006-US45661	W	20061129			
	US 2007-947275P	P	20070629			

√L11 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

SO Acta Crystallographica, Section E: Structure Reports Online (2006), E62(3), o928-o930

√L11 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

PA MNL Pharma Limited, UK

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006008493	A1	20060126	WO 2005-GB2800	√20050718
PRAI	GB 2004-16419	A	20040723		
	GB 2004-27926	A	20041221		

√L11 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

PA M N L Pharma Limited, UK

SO PCT Int. Appl., 91 pp.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005070418	A1	20050804	WO 2005-GB215	√20050121
	AU 2005205962	A1	20050804	AU 2005-205962	20050121
	CA 2553854	A1	20050804	CA 2005-2553854	20050121
	EP 1711176	A1	20061018	EP 2005-701978	20050121
	JP 2007518785	T	20070712	JP 2006-550281	20050121
PRAI	GB 2004-1238	A	20040121		
	WO 2005-GB215	W	20050121		

√L11 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

PA M N L Pharma Limited, UK

SO PCT Int. Appl., 58 pp.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005070415	A1	20050804	WO 2005-GB228	√20050121
	AU 2005205968	A1	20050804	AU 2005-205968	20050121
	CA 2553986	A1	20050804	CA 2005-2553986	20050121
	EP 1711174	A1	20061018	EP 2005-701990	20050121
	EP 1711174	B1	20080319		
	AT 389397	T	20080415	AT 2005-701990	20050121
PRAI	GB 2004-1239	A	20040121		

WO 2005-GB228 W 20050121

L11 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron (2005), 61(27), 6527-6533

L11 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
PA Japan

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005132837	A	20050526	JP 2004-296845	20041008
PRAI JP 2003-350926	A	20031009		

L11 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron: Asymmetry (2004), 15(22), 3635-3642

L11 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Acta Crystallographica, Section E: Structure Reports Online (2004), E60(9), o1463-o1464

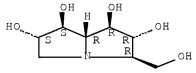
L11 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO (2003) 459 pp. Avail.: UMI, Order No. DA3091526

L11 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron: Asymmetry (2003), 14(3), 325-331

L11 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:139366 CAPLUS Full-text
DN 135:335035
TI Usefulness of nangapiry, a Paraguayan medicinal plant for functional health beverage
AU Arisawa, Munehisa; Hayashi, Toshimitsu; Momose, Yasunori
CS Department of Pharmacology, Toyama Medical and Pharmaceutical University, Japan
SO Food Style 21 (2001), 5(2), 69-73
CODEN: FSTYFF
PB Shokuhin Kagaku Shinbunsha
DT Journal; General Review
LA Japanese
AB A review with refs. on the physiol. effect of nangapiry (Eugenia) which is used in Paraguayan health beverage, covering its blood glucose-inhibitory effect, α-glucosidase-inhibitory effect, and blood pressure-lowering effect, etc. The active components in nangapiry, i.e. uniflorine A, uniflorine B, and (+)-(3α,4α,5β)-1-methylpiperidine-3,4,5- triol are also disclosed.
IT 359440-57-0, Uniflorine B 260247-75-4, Uniflorine A
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(physiol. functions of nangapiry (Eugenia) and its active components)

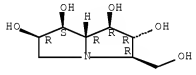
RN 159440-57-0 CAPLUS
CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6S,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 260247-75-4 CAPLUS
CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6R,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



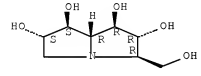
L11 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:897173 CAPLUS Full-text
DN 135:127011
TI α-Glucosidase inhibitors from Paraguayan natural medicine, Nangapiry, the leaves of Eugenia uniflora
AU Matsumura, Tae; Kasai, Mie; Hayashi, Toshimitsu; Arisawa, Munehisa; Momose, Yasunori; Arai, Ichiro; Amagaya, Sakae; Komatsu, Yasuhiro
CS Lab. Herbal Garden, Toyama Med. Pharmaceutical Univ., Toyama, 930-0194, Japan
SO Pharmaceutical Biology (Lisse, Netherlands) (2000), 38(4), 302-307
CODEN: PHBIFC; ISSN: 1388-0209
PB Swets & Zeitlinger B.V.
DT Journal
LA English
AB The water-soluble extract from a Paraguayan natural product, Nangapiry (the leaves of E. uniflora (Myrtaceae)), which has been used as an antidiabetic, showed inhibitory activities on the increase of plasma glucose levels in the sucrose tolerance test (STT) in mice. The fraction adsorbed on a cation exchange resin also inhibited α-glucosidases. From the active fraction, 2 new active compds., uniflorine A (I) and B (II) and the known (+)-(3α,5β)-1-methylpiperidine-3,4,5-triol were isolated. The structures of I and II were determined as (-)-(1S,2R,6S,7R,8R,8aR)-1,2,6,7,8-pentahydroxyindolizidine and (+)-(1S,2R,5R,7R,8S,8aS)-1,2,5,7,8-pentahydroxyindolizidine by spectral means, resp.
IT 159440-57-0, Uniflorine B 260247-75-4, Uniflorine A
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

(α-glucosidase inhibitors from Nangapiry (Eugenia uniflora leaves) from Paraguay)

RN 159440-57-0 CAPLUS

CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6S,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



√L11 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

TI The total synthesis of (−)-detoxinine and (+)-casuarine using tandem [4+2]/[3+2] nitroalkene cycloadditions and cycloadditions of nitroethylene

√L11 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AB Atmospheric pressure chemical ionization (APCI) and electrospray (ES) are compared as ion sources in the anal. of polyhydroxyalkaloids (PHAs) by liquid chromatog. mass spectrometry (LC-MS) and collision induced dissociation (CID) product ion spectra, from tandem mass spectrometry (MS-MS) expts. in a quadrupole ion trap, are reported for 12 naturally occurring PHAs. APCI was found to be a more useful source than ES, as APCI could be used to generate deprotonated mol. ions in neg. mode and for some isomeric PHAs the neg. CID product ion spectra were more diagnostic than the pos. product ion spectra. On-column detection limits were also approx. 32 times lower by pos. APCI than ES. The work provides data that will facilitate screening and characterization of this group of important natural products in plant and fungal exts.

√L11 ANSWER 32 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of (+)-Casuarine

L11 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:183992 CAPLUS Full-text

DN 132:332046

TI New polyhydroxylated pyrrolizidine alkaloids from Muscari armeniacum: structural determination and biological activity

AU Asano, Naoki; Kuroi, Hiroyo; Ikeda, Kyoko; Kizu, Haruhisa; Kameda, Yukihiko; Kato, Atsushi; Adachi, Isao; Watson, Alison A.; Nash, Robert J.; Fleet, George W. J.

CS Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, 920-1181, Japan

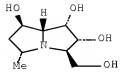
SO Tetrahedron: Asymmetry (2000), 11(1), 1-8
CODEN: TASYE3; ISSN: 0957-4166

PB Elsevier Science Ltd.

DT Journal

LA English

GI



I

AB Four new polyhydroxypyrrolizidines, hyacinthacines A1, A2, A3 and B3 (I), were isolated from the bulbs of Muscari armeniacum (Hyacinthaceae) in addition to the known hyacinthacine C1, which was isolated from Hyacinthoides non-scripta (Hyacinthaceae). The structures of hyacinthacines A1, A2, A3 and B3 were identified on the basis of extensive NMR studies as (1S,2R,3R,7aR)-1,2-dihydroxy-3-hydroxymethylpyrrolizidine, (1R,2R,3R,7aR)-1,2-dihydroxy-3-hydroxymethylpyrrolizidine, (1R,2R,3R,5R,7aR)-1,2-dihydroxy-3-hydroxymethyl-5-methylpyrrolizidine and (1S,2R,3R,5R,7R,7aR)-3-hydroxymethyl-5-methyl-1,2,7-trihydroxypyrrolizidine, resp., or the corresponding enantiomers. The inhibitory activities of these new hyacinthacines against a variety of glycosidases are described.

L11 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:150494 CAPLUS Full-text

DN 132:203147

TI Pentahydroxyindolizidine and α-glucosidase inhibitors containing products of Eugenia uniflora

IN Momose, Yasunori

PA Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

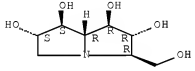
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000072770	A	20000307	JP 1998-245307	19980831
PRAI	JP 1998-245307		19980831		

AB (-)-(1S,2R,6S,7R,8R,8aR)-1,2,6,7,8-pentahydroxyindolizidine (I) and (+)-(1S,2R,5R,7R,8S,8aS)-1,2,5,7,8-pentahydroxyindolizidine (II) contained in E. uniflora are claimed. Also claimed are α-glucosidase inhibitors containing exts. or powder of E. uniflora, useful for treatment of diabetes, obesity, etc. The exts. may contain ≥1 selected from I, II, and (+)-(3α,4α,5β)-1-methylpiperidine-3,4,5-triol (III). Isolation of I, II, and III from a hot water extract of E. uniflora and their maltase-inhibiting and sucrase-inhibiting activities were shown. The hot water extract (spray-dried powder) was orally administered to mice together with sucrose to significantly suppressed the increase in blood glucose. Pharmaceutical prepns. containing the exts. were also formulated.

IT 159440-57-0P 260247-75-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(isolation of pentahydroxyindolizidine as α-glucosidase inhibitors from Eugenia uniflora for antiobesity and antidiabetic

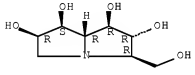
agents)
RN 159440-57-0 CAPLUS
CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6S,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 260247-75-4 CAPLUS
CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-, (1R,2R,3R,6R,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



√L11 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Phytochemical Analysis (1999), 10(5), 259-263

√L11 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
TI Synthesis of (+)-Casuarine
SO Organic Letters (1999), 1(8), 1311-1314

L11 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:416453 CAPLUS Full-text
DN 131:182298
TI Polyhydroxylated pyrrolidine and pyrrolizidine alkaloids from Hyacinthoides non-scripta and Scilla campanulata
AU Kato, Atsushi; Adachi, Isao; Miyauchi, Miwa; Ikeda, Kyoko; Komae, Tomomi; Kizu, Haruhisa; Kameda, Yukihiko; Watson, Alison A.; Nash, Robert J.; Wormald, Mark R.; Fleet, George W. J.; Asano, Naoki
CS Department of Hospital Pharmacy, Toyama Medical and Pharmaceutical University, Toyama, 930-0194, Japan
SO Carbohydrate Research (1999), 316(1-4), 95-103
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier Science Ltd.
DT Journal
LA English
AB Aqueous ethanol exts. from the immature fruits and stalks of bluebell (Hyacinthoides non-scripta) were subjected to various ion-exchange column

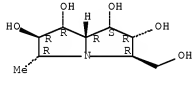
chromatog. steps to give 1,4-dideoxy-1,4-imino-D-arabinitol (I), 2(R),5(R)-bis(hydroxymethyl)-3(R),4(R)-dihydroxypyrrolidine (DMDP) (II), 6-deoxy-6-C-(2,5-dihydroxyhexyl)-DMDP (III), 2,5-dideoxy-2,5-imino-DL-glycero-D-manno-heptitol (homoDMDP) (IV), homoDMDP-7-O-apioside (V), homoDMDP-7-O-β-D-xylopyranoside (VI), (1S*,2R*,3R*,5R*,7aR*)-1,2-dihydroxy-3,5-dihydroxymethylpyrrolizidine (VII), and (1S*,2R*,3R*,5R*,6R*,7R*,7aR*)-3-hydroxymethyl-5-methyl-1,2,6,7- tetrahydroxypyrrolizidine (VIII). Bulbs of Scilla campanulata (Hyacinthaceae) yielded (1S*,2R*,3R*,5S*,7aR*)-1,2-dihydroxy-3,5-dihydroxy- methylpyrrolizidine (IX) in addition to compds. I-VII. Compds. III, VI, VII, VIII, and IX are new natural products. Compound IV is a potent competitive inhibitor with Ki values of 1.5 μM for Caldocellum saccharolyticum β-glucosidase and 2.2 μM for bovine liver β-galactosidase. The 7-O-β-D-xyloside VI was a stronger competitive inhibitor than IV of C. saccharolyticum β-glucosidase and rat intestinal lactase, with Ki values of 0.06 and 0.07 μM, resp., but a weaker inhibitor of bovine liver β-galactosidase. Furthermore, compound IV is also a competitive inhibitor (Ki = 1.8 μM) of porcine kidney trehalase, but 6 was inactive against this enzyme.

IT 240117-30-0P, Hyacinthacine C1
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(glycosidase inhibiting activities of pyrrolidine and pyrrolizidine alkaloids from Hyacinthoides non-scripta and Scilla campanulata)

RN 240117-30-0 CAPLUS

CN 1H-Pyrrolizine-1,2,6,7-tetrol, hexahydro-3-(hydroxymethyl)-5-methyl-, (1S,2R,3R,5R,6R,7R,7aR)-rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.
Currently available stereo shown.



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

√L11 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN

SO Tetrahedron: Asymmetry (1998), 9(14), 2549-2558

AB The NMR spectra of a number of naturally occurring alexines (tetrahydroxylated pyrrolizidine alkaloids) are analyzed and the consequences of changes in the configuration on the conformation of these bicyclic systems discussed. Unambiguous syntheses of australine (7-epi-alexine) and of 7,7a-epi-alexine have now unequivocally established the structures of two natural products isolated from Castanospermum australe which were insecure due to erroneous NMR data. Chemical shift parameters are unreliable as a method of comparing different samples of identical compds.; however, 1H-1H three bond coupling consts. (3JHH) provide easy direct comparison between samples and allow assignments of both the relative configurations for the ring protons and the conformation of the pyrrolizidine framework.

√L11 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron Letters (1997), 38(33), 5869-5872

√L11 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Carbohydrate Letters (1996), 2(3), 169-174
AB The isolation, identification and conformational anal. of Casuarine-6-α-D-glucopyranose I from Casuarina equisetifolia L. and Eugenia jambolana Lam. is reported.

√L11 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2008 ACS on STN
SO Tetrahedron Letters (1994), 35(42), 7849-52
AB The isolation from Casuarina equisetifolia bark of casuarine [(1R,2R,3R,6S,7S,7aR)-3-(hydroxymethyl)-2,6,7-tetrahydroxypyrrolizidine] is reported.

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SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 06:29:38 ON 22 DEC 2008